Abstract Submitted
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**Superconductivity in $NbSe_2$ intercalated with indium atoms.**[1] FREDERICO SANTOS, RITA RANGEL, LUCAS CORREA, BRUNO DE LIMA, ORLANDO CIGARROA, ANTONIO MACHADO, Univ Sao Paulo — $NbSe_2$ compound crystallizes in $MoS_2$ prototype structure and it is a very well knows superconductor, which exhibits coexistence between superconductivity and CDW instability. High quality samples of this material display maximum superconducting critical temperature close to 7.2 K and CDW transition close to 33.0 K. In this work, we present results that shown $NbS_2$ prototype stabilization structure when $NbSe_2$ is intercalated with indium atoms. These intercalations obey the $In_xNbSe_2$ stoichiometry with indium intercalation into $0.025 \leq x \leq 0.08$ range. In this range of the composition the critical temperature reach the maximum close to 7.5 K on the $In_{0.035}NbSe_2$ stoichiometry, revealed by resistivity, magnetization and heat capacity measurements. On the resistivity measurements, we did not find any evidence of CDW instability in all range of temperature.

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